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Federal Communications Commission
Office of the Secretary

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Amendment of Part 90 of the)	
Commission's Rules Pertaining)	PR Docket No. 92-78
to End User and Mobile Licensing)	RM-7407
Information)	RM-7749

To: The Commission

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COMMENTS OF PAGING NETWORK, INC.

I. INTRODUCTION

Paging Network, Inc. ("PageNet"), by its attorneys, and pursuant to Section 1.405 of the Commission's rules, hereby submits its comments on the proposals set forth in the above-captioned proceeding.¹ In this docket, the Commission is considering modifications of rules and procedures affecting the licensing of private land mobile communications systems.

A. Statement of Interest

PageNet is the largest and fastest growing paging company in the United States, providing paging services through both private and common carrier systems nationwide. It has a longstanding commitment to offering state of the art paging

¹ Notice of Proposed Rule Making ("NPRM"), FCC 92-171, released May 5, 1992.

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services to subscribers at the lowest possible cost. It is an interested party to this proceeding because actions taken by the Commission herein will directly affect the regulatory environment in which those services are provided and the burdens which private carrier paging ("PCP") licensees must bare in the conduct of their business.

B. Summary of Notice

The Commission initiated this proceeding to seek comments on proposed amendments to Part 90 of its rules governing the private land mobile radio services. Specifically, the Commission seeks comment on the following subjects:

- 1) A proposal to modify rule § 90.179, "Shared Use of Radio Stations," deleting subsection (e) thereof, eliminating the requirement that licensees of shared systems that do not individually license their end users maintain and periodically submit information about those end users to the Commission and frequency coordinators.
- 2) Proposals to modify rule § 90.135, "Modification of License," to require that license modification applications be filed
 - ° in the case of licensees operating on paging-only channels, when the number of pagers on the system increases or decreases by 35% from that reflected on the license, (See proposed § 90.135(a)(8)), and
 - ° in the case of all Part 90 licensees, other than those operating on exclusive assignments in the 470-512 MHz band and on conventional channels above 800 MHz, when the number of mobile transmitters changes 20% from that authorized (See proposed § 90.135(a)(5)).
- 3) A proposal to modify rule § 90.175, "Frequency Coordination Requirements," to exempt applications for modification of license filed pursuant to § 90.135(a)(5) and (8) from the requirement to obtain frequency coordination.

- 4) A proposal to modify rule § 90.159, "Temporary and Conditional Permits," to allow license modification applicants filing pursuant to § 90.135(a)(5) and (8) to operate for a period of 180 days upon filing the application for modification.

With respect to the proposed revision of Section 90.135(a)(8), the Notice also seeks comment on two alternative proposals. The first would entirely eliminate the requirement to file for license modification when the number of paging units changes. The second would establish channel occupancy criteria and a requirement that licensees notify the Commission when that factor changes by a prescribed percentage. In connection with the latter proposal, the Notice asks for comment on whether to adopt technical restrictions on paging transmissions that would reduce channel occupancy time and stimulate greater efficiencies in the use of paging frequencies.

As a licensee of non-shared use PCP systems, PageNet takes no position with respect to the first proposal regarding reporting of end user information by licensees of shared systems.² Similarly, PageNet has no comment regarding amendment of rule § 90.135(a)(5), since that section contemplates license modification requirements for communication systems that include

² PageNet has previously stated its position that filing of end-user information by PCP licensees is not required and that such information is proprietary and should not be required to be routinely divulged in reports to the Commission or frequency coordinators. PageNet Comments on RM-7749 at 4 and n.2.

mobile transmitters. ³ Each of the remaining subjects will be addressed in turn.

II. MODIFICATION OF LICENSE

PageNet enthusiastically supports modification of rule § 90.135(a)(8) in a manner which eliminates unnecessary paperwork yet accommodates the legitimate needs of the Commission and frequency coordinators for information about the level of usage of paging-only channels where such channels are shared. ⁴ In the modern PCP environment of digital systems that grow exponentially to capacities of 100,000 subscribers, or more, the present rule requiring license modification with every addition of 50 pagers, is practically and administratively anachronistic and unworkable. Recognizing this, the Commission finds the present rule "not

³ The Commission has before it in ET Docket No. 92-100 PageNet's proposal for rule making and a pioneer's preference to provide voice paging as an Advanced Messaging Service in the 930-931 MHz band. While the technology envisioned in PageNet's "VoiceNow" system includes very low power mobile transmitter-pagers, rules proposed for adoption in connection with the VoiceNow service specifically provide that pagers containing an acknowledgment transmitter will not be considered mobile transmitters under the rules for Part 90. The advent of next generation answer back paging technology should not be viewed as requiring treatment different than that given to traditional one-way paging operations.

⁴ PageNet also has commented in support of a Petition for Rule Making filed by the National Association of Business and Education Radio, Inc. ("NABER") urging the Commission to adopt rules for achieving earned exclusivity on private paging-only channels. As with exclusively licensed frequencies in the common carrier paging services, the Commission's need for licensing records reflecting added numbers of paging subscribers on existing systems would no longer exist where private channels are licensed on an exclusive basis, nor would coordinators require such information.

appropriate" ⁵ and recommends that licensees advise the Commission by filing license modification applications each time the number of pagers on the system increases or decreases by 35%. PageNet recommends that license modifications be filed on a notification basis and on a periodic filing schedule rather than triggered by statistical increases or decreases in numbers of pagers.

A. Reporting of Pager Loading by PCP Licensees Must Provide Necessary Licensing and Coordination Information Without Creating Excess Paperwork and Administrative Burdens.

The Commission's objective in collecting information about pager loading on shared paging-only channels is to "ensure a current data base while relieving licensees operating on paging-only channels of unnecessarily burdensome recordkeeping obligations." ⁶ NABER's interest is in "timely information" to enable it "to make routine frequency recommendations." ⁷ Both objectives can and should be met pursuant to a rule that combines annual reporting with the license modification rule proposed in the Notice.

Using PageNet's experience in constructing, loading and operating PCP channels in Florida as a case in point, it can be seen that a formula-based modification requirement is undesirable, particularly during the initial 18 months after licensing. In southern Florida, where PageNet was first authorized in July 1991 and currently operates a system with more than 85,000 subscribers,

⁵ NPRM at ¶ 21.

⁶ NPRM at ¶ 22.

⁷ Reply comments of NABER on RM-7749 at 6.

such a requirement would already have required the filing of at least four (4) applications for license modification. A system expanding at the rate of 700 new pagers per week -- a growth rate which PageNet has experienced in Florida and many other markets -- would file for six (6) modifications in the first 18 months assuming initial loading (i.e., at eight months) of 10,000 pagers; five (5) applications assuming initial loading of 20,000 pagers; and three (3) with initial loading of 30,000.

A license modification rule must be closely tailored to accommodate the manner in which PCP systems are constructed, grow and are operated. Typically, in initiating new PCP service in a market, PageNet constructs and commences operation under the Conditional Permit provisions of Section 90.159. Its applications reflect the number of pagers it anticipates having on the system by the end of the eight month construction period.⁸ In Florida, where experience in operating common carrier paging systems provided evidence of how quickly a channel could be loaded, PageNet projected its eight-month loading at 20,000 pagers. As noted above, in 11 months the system has grown to in excess of 85,000 subscribers. To achieve compliance with the Commission's proposed rule, PageNet would now be preparing its fifth modification application for a system less than one year old. PageNet therefore recommends adoption of a reporting requirement as set forth below that would continue to accommodate the

⁸ See Section 90.127(c) and instructions for completing Items 3 and 12 of FCC Form 574. FCC Form 574 Instructions, August 1989 edition.

Commission's and NABER's need for information without burdening the agency, the coordinator or the licensee unnecessarily. The rule PageNet proposes would work equally well for slow-growth and fast-growth systems.

PageNet recommends that rule § 90.135(a)(8) be modified to require PCP licensees to report to the FCC and to NABER one year from the date of initial filing on the number of pagers subscribed to the system and to request modification of license only if, at the time the report is filed, the number of pagers has increased or decreased by 35% or more.⁹ Likewise thereafter, license modification would be required based on the 35% change criteria, but in no event more often than annually. Finally, requests for license modification would be submitted on a notification basis as described in Section II.B., below.

In the case of a young fast-growing system, the rule PageNet proposes would avoid the need to file modifications as often as every three months during the first 12 to 18 months. Following the initial one- to three-year expansion period, a mature fully-loaded system would no longer need to file for license modifications, unless it experienced a period of marked contraction and its loading decreased by more than 35%. Small slow-growth systems might be required to do no more than submit the initial annual report to the Commission, with a copy to NABER, indicating the number of pagers on the system and, where there is

⁹ In the event no modification is required, the report would consist of a letter certifying as to the number of pagers on the system.

a difference of less than 35% over the number licensed, so certifying. The contemporaneous filing with NABER is necessary to provide NABER with information it needs to perform its routine coordination function on shared paging-only channels at the time the Commission is apprised of the condition of its PCP licensees.

The significance of proceeding in this manner is demonstrated by the following tables, which assume systems growing at the rate of 700 pagers per week. This example also assumes maximum loading of approximately 100,000-120,000 pagers, which is reasonably typical on a system comprised of a variety of signaling speeds, call rates ¹⁰ and various user populations.

Table 1. License Modifications Beginning at Eighth Month Following Initial Authorization Grant.			
<u>No. of Pagers</u>	<u>35% Change</u>	<u>Growth Interval</u>	<u>FCC Filing</u>
20,000	7,000	10 weeks	<-----
[One Year Anniversary of Grant]			
27,000	9,450	14 weeks	<-----
36,450	12,757	18 weeks	<-----
49,207	17,222	25 weeks	<-----
[18 Month Anniversary of Grant]			
66,429	23,250	33 weeks	<-----
[Two year Anniversary of Grant]			
89,679	31,387	45 weeks	<-----
* * *[System Fully Loaded]* * *			

¹⁰ See note 17 and text accompanying, infra.

Table 2. License Modifications Based on 35% Change But
No More Often Than Annually Following Initial Filing.

<u>No. of Pagers</u>	<u>35% Change</u>	<u>Growth Interval</u>	<u>FCC Filing</u>
32,136 *	[One Year Anniversary of Filing]		<-----
	11,248	16 weeks	
43,384	15,184	22 weeks	
68,536 **	[Two Year Anniversary of Filing]		<-----
	23,988	34 weeks	
104,936 **	[Three Year Anniversary of Filing]		<-----
	* * *[System Fully Loaded]* * *		

* Assumes 20,000 pagers projected loading at eight months plus 700 per week until one year anniversary of initial filing.

** Includes growth at 700 pagers per week for the full 52 weeks of the second and third years.

B. PageNet's Proposed Rule Would Reduce Compliance Burdens on PCP Licensees, Curtail Enforcement Burdens on the Commission and Enhance Cost-Effective Service to the Consumer.

Modification of Section 90.135(a)(8) as PageNet has proposed is directly in line with the Commission's aim in this proceeding to reduce or eliminate "unnecessary regulatory burdens" on PCP licensees and to find the "least burdensome method" of acquiring and maintaining information about use of paging-only channels. As can be seen from the above discussion, a rule that limits the reporting requirement on licensees to no more than an annual filing could reduce the number of such filings by as much as 50%. In a system like PageNet's in southern Florida, where

regional PCP service is provided through a network of 14 separately licensed call signs, the number of filings expands quickly. Under the Commission's plan, PageNet's filings in that region alone would currently number nearly 70 during an 11-month period.

The cost of licensee compliance increases exponentially as well, including the cost of application preparation and filing fees, as well as the increased expense of monitoring fast-growing systems and implementing systems to trigger the necessary filings at the appropriate times. Each of these expenses compromises the licensee's ability to provide low cost service to the public. The customer ultimately is forced through higher rates to absorb the cost of overhead and administrative expenses or, alternatively, and particularly in a highly competitive market environment like the paging industry, must suffer a lower grade of service as those costs are absorbed by the service provider. Moreover, with forfeitures for "failure to file required forms or information" fixed at \$3,000.00 per violation, the incentive for licensees not to neglect their duty in this regard is great. ¹¹

In addition to the added burden on licensees and potential cost to customers, adoption of a rule which imposes filing requirements in excess of the minimum necessary to achieve a regulatory objective unjustifiably increases the Commission's enforcement obligations and the cost of administration. The rule as proposed herein would reduce the burdens on the Commission to

¹¹ Policy Statement, Standards for Assessing Forfeitures, 6 FCC Rcd 4695 (1991), Appendix.

police compliance by making the rule inherently less onerous for licensees to abide by, thereby increasing the anticipated level of voluntary compliance.

C. Total Elimination of License Modification Requirements is not in the Public Interest Where Paging-Only Channels are Licensed on a Shared Basis.

The Commission has asked for comment on "whether there is any need, after the initial licensing of systems on paging-only channels, for a modification of a system's license to authorize a change in the number of paging units." ¹² The Commission reasons that in their own self interest licensees will cease to add pagers when to do so would result in an unacceptable grade of service, and it points out that modifications of license to authorize a change in the number of pager units are uniformly granted. ¹³

PageNet is opposed to doing away entirely with record keeping and the maintenance of a database reflecting the level of pager loading on shared PCP channels. It recognizes along with the Commission that license modifications to increase the number of pagers are uniformly granted. It recommends, therefore, that such information be supplied to the Commission and the frequency coordinator on a notification basis.

So long as frequencies are shared, PageNet believes it necessary that licensees provide the frequency coordinator information on the number of pagers subscribed to their system. While PCP licensees operating on shared channels can control the

¹² NPRM at ¶ 23.

¹³ Id.

addition of paging units in an attempt to assure that customers will continue to receive an acceptable grade of service, the licensing of additional systems on those channels by the Commission is facilitated by the frequency coordinator based on its assessment of channel utilization. Without pager loading information, NABER's ability to perform its coordination function in the interest of providing the best practicable service to the public would be curtailed if not fatally compromised. Although NABER has devised a questionnaire whereby it seeks to obtain information about channel occupancy in cases where it must supplement its database in order to coordinate a frequency, adoption of the license modification rule proposed by PageNet, treated as a permissive modification and notification procedure as described below, is recommended as preferable to use of an ad hoc survey approach.

Having operated extensively as a common carrier paging licensee in virtually every major market in the country, PageNet is intimately familiar with the process used in the Common Carrier Mobile Services Division to notify the Commission of completion of minor modifications to existing systems which do not require prior Commission authority.¹⁴ License modifications reflecting the addition or deletion of pagers from a PCP system are just the sort of minor operational changes which could readily be handled through such a routine notification mechanism. PageNet therefore recommends adoption of a procedure whereby Form 574, or a

¹⁴ FCC Form 489, "Notification of Status of Facilities Under Part 22 of FCC Rules," is used for this purpose.

substitute abbreviated form, would be used to notify the Commission of pager loading where there have been no other modifications in the technical parameters of the station. A filing of this nature, either at the time a 35% change occurs or annually, as provided above, would satisfy the coordinator's legitimate need for such information and the Commission's interest in maintaining an adequate database. It would also maximally protect the paging customer's right to quality service, without posing an undue regulatory burden on PCP licensees in sustaining that level of service.

D. Establishment of a Mandatory Signal Transmission Length is Neither Advisable nor Workable.

The Commission has recognized the effect that channel occupancy has on spectrum management. In the Notice, it defines channel occupancy as the combined function of the number of pagers on a system and the amount of time it takes to transmit messages to those pagers. As an alternative to the reporting and license modification proposal set forth initially in the Notice, the Commission requests comments on whether a standard for measuring channel occupancy, based on those two factors, should be incorporated into the rules, with a requirement to notify the Commission of changes exceeding a certain percentage in the occupancy figure.¹⁵ In addition it seeks comment on whether a

¹⁵ NPRM at ¶ 24.

standard should be established fixing an "average" or "median" transmission length.¹⁶

In the management of its paging systems throughout the country, both private and common carrier, PageNet has developed the sophisticated technological means of determining channel occupancy in order to monitor the growth of its systems and to anticipate and accommodate the need for additional frequencies. In this effort, PageNet has found it necessary to consider, in addition to the two factors identified by the Commission, a third factor -- the busy hour call rate ("BHCR") -- and to include that figure in its calculations.¹⁷ The introduction of digital equipment operating at ever-increasing transmission speeds has dramatically increased the number of pagers which can be loaded per frequency. In its quest to provide the highest quality of service at the lowest possible cost, the efficient use of assigned frequencies has been the key to PageNet's success.

The problems which the Commission seeks to address are real and of primary importance where PCP channels are shared. The undesirability of one licensee using a disproportionate share of time on a channel to transmit analog voice pages cannot be disputed. However, PageNet's experience in this area has made it aware of the difficulty of establishing rules which could be applied and effectively enforced in the area of transmission rates

¹⁶ Id. at ¶ 25.

¹⁷ The BHCR is the percentage of subscribers on a system who are called during the busy hour. Call rates have been found to vary between 18% and 26% in various markets around the country where PageNet operates its systems.

as a measure of channel occupancy. The subject has been discussed at length among members of the PCP industry who by consensus acknowledge the problems posed particularly by the advent of digital technology in regard to measuring channel occupancy. The spectral efficiency gains of digital over analog and its increasing use industry-wide mandate that the channel occupancy issue be focused in the light of digital technology.

By contrast to analog modulation which sends each message as a separate, integrated transmission, digital modulation divides the message into information bits and transmits them in batches. Depending on the number of messages being transmitted, the batches may be full of message information or may contain limited message material with idle code words comprising the remainder of the batch. Therefore, without increasing the amount of air time being used on the channel, the level of message transmission may vary greatly, depending on whether the digital batches are full or virtually empty. This technical imperative fundamentally undercuts the reliability of the measuring tool which a transmission standard might seek to establish. On a shared channel, the simpler and more verifiable approach to assessing the level of channel occupancy is through reporting pager loading by the numbers, as discussed above. PageNet therefore recommends against the adoption of a signaling standard or formula based on numbers of pagers x transmission length for determining channel occupancy on shared PCP channels. Such a rule, though well-intentioned, is destined to prove unworkable.

III. FREQUENCY COORDINATION REQUIREMENTS & CONDITIONAL PERMITS

In a further effort to reduce the regulatory burdens on land mobile licensees the Commission is proposing that license modification applications which are filed solely to increase the number of pagers or mobiles be submitted directly to the FCC. Accordingly, it proposes to modify the frequency coordination requirements in Section 90.175 to exempt such applications. In addition it clarifies that the conditional licensing provisions of Section 90.159 would come into effect immediately upon the filing of such applications with the Commission.

PageNet supports the adoption of both proposals. As discussed above, PageNet recommends that license modifications be handled on a notification basis, and that copies of the notifications be served on the frequency coordinator. The Commission questions the need to file this information with the coordinator since copies of modified licenses are sent to NABER by the Commission when they are issued. PageNet believes that the minimal cost of serving NABER with this information at the time of filing is significantly outweighed by the potential cost to the customer in terms of degraded service which could result from having another licensee coordinated onto a channel, when it otherwise would not have been, during the interval between filing of the notification and receipt by NABER of a copy of the modified license. This is a risk from which the consumer cannot protect itself.

Although licensees may voluntarily choose to provide NABER with pager loading information at the time of filing with

the Commission, the integrity of NABER's database should not be left to chance when it can so readily be protected. PageNet therefore supports modification of Section 90.175 to exempt license modifications filed solely to change the number of pagers from the requirement to obtain frequency coordination. A requirement that such modifications be served on the frequency coordinator at the time of filing with the FCC should be made a part of a modified Section 90.135(a)(8). ¹⁸

Finally, PageNet supports the applicability of the conditional licensing provisions of Section 90.159 to license modifications filed pursuant Section 90.135(a)(8).

IV. CONCLUSION

PageNet commends the Commission for initiating this proceeding in which it seeks to lighten the regulatory burden on land mobile licensees. It particularly commends the Commission for proposing to modify the "50 pager rule" at Section 90.135(a)(8) to

¹⁸ The revised rule § 90.135(a)(8) should read: "Change of 35 percent in the number of paging receivers from that authorized for systems licensed on paging-only channels, provided that such modification shall not be required more than once in any 12 month period and that a copy of the modification request shall be submitted to the frequency coordinator at the time it is filed with the Commission."

bring it in line with the realities of the Private Carrier Paging industry as it exists today. PageNet enthusiastically supports the adoption of the rules proposed in the Notice, as discussed herein, including the modifications which it has recommended.

Respectfully submitted

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